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A Survey

By

PROF. K. P. CHATTOPADHYAY

DR. P. K. BOSE AND SRI A. CHATTERJI

With a foreword

By

DR. J. C. GHOSE

Vice-Chancellor, Calcutta University

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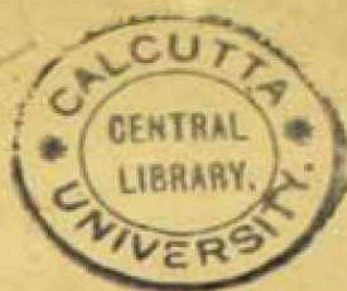


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WITH A FOREWORD BY THE VICE-CHANCELLOR

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FOREWORD

1.1. The University exists wherever the teacher and students face one another in class rooms, in seminars, laboratories and reading rooms. What they need most the University needs most. The first problem is therefore to discover what they need most. If a problem is well understood we are half way on the way to solution. Prof. Chattopadhyay, Dr. Bose and Sri Chatterji have given in this report a factual statement of the conditions under which undergraduate men students in Calcutta live and work.

1.2. These conditions are appalling in all conscience. It is time that representatives of the University and Government sit down together resolved not to leave the Conference Room until a plan for mitigating these conditions has been evolved.

1.3. I am often asked—why should so many students flock to undergraduate classes? Those who ask this question forget that we have today 28,800 men students in our intermediate classes. They

belong to the age group 15+ and 17-. It is surely not a proper solution that students from homes, poor no doubt, but with the rich traditions of the middle classes for cultural and intellectual pursuits, should be compelled to earn ~~his~~ ^{their} living by manual work at the age of 15+. It is pointed out that in England no more than 20% of the students who complete the higher secondary education, join the Universities; but it is generally forgotten that this higher Secondary education is completed at the age of 18+ and not at 15+ which is the average age of entrance to the University of Calcutta*. Then again it is forgotten that 2.2 million students in England* (with a total population of 45 millions) above the age of 18 attend evening classes of technical and commercial institutes without having to pay any fees for doing so. There, they have perfected the 'Earn as you learn' system of education for young men of merit and ambition coming from poorer homes. Is it wise to throw our young boys of 15+ and 17- into the struggling arena of life without creating facilities for further education of a professional character in evening classes? We are in the grip of an employment crisis—specially among the educated. I feel that the parents who defer now the entrance of their boys into the employment market are, in a way, rendering a service to the State.

1.4. It is prudent to separate short term remedial measures from long term ones. I have given anxious thought to this problem for the last 3 months and certain *short term* measures which appear to me to be both desirable and feasible are discussed below.

1.5. The survey brings out the remarkable vitality of joint family and middle class traditions. 90% of the students live with parents or relations. Five per cent. live in hostels and 5% in unrecognised messes where the monthly expenses are of the order of Rs. 50. A few only can afford to meet the cost of living away from the homes of relations; and therefore building residential hostels in large numbers offers no solution. New Halls, preferably on the pattern of the Halls of Residence at the Indian Institute of Technology at Kharagpur, which will provide residential accommodation to 500 students in the suburbs of Calcutta will be a very welcome relief. Such Halls of residence are better placed under the management of organisations like Ramkrishna Mission or the Y.M.C.A.

1.6. 13,000 students come from families where the per capita income is less than Rs. 30 per month and 14,000 from families where the

* That some day in future, these boys will be taken care of in higher Secondary schools should be no reason for denying them adequate facilities for education in intermediate classes today.

income lies between Rs. 30 and Rs. 50 per month. The former class live below the subsistence level and the latter on the margin. It is no wonder therefore that 23,600 students live in homes where they have a floor space barely 24 square feet in area, and that also as a part of an overcrowded room. They fare no better in the colleges where they are supposed to study in day time. In colleges, other than those maintained by Government or Missionary Societies, the floor space available per student varies between 6 and 9 sq. ft. A student of uncommon will-power, can devote to his study in such homes no more than 3 hours a day late at night or early in the morning. In the colleges he has sitting accommodation in a hard bench in the class room, or just standing accommodation in the laboratories, only during the few periods of the day allotted to him in the time-table. Loitering about the streets of Calcutta for most of the day is perforce his major occupation.

1.7. Education consists mostly in encouraging the formation of right habits, and the capacity of right thinking. Such habits and capacity should become a part of one's nature so that they can be automatically exercised. Until the general economic condition of the middle classes, who have suffered terribly in Bengal, due to partition and due to the economic policies followed by Government during and after the war, is improved, it will not, for the majority of our students, be possible to improve the condition of home study and work, which only can develop such habit and capacity. Even now middle class families are sending their boys to colleges at enormous sacrifices and privations. There are the competing claims of hunger and education—and the housewife often thinks that education has the better claim. The middle classes have too much self-respect to ventilate their miseries in the public. The miseries are there—no less real, even though behind the screen.

1.8. I have often found in Switzerland and in other progressive parts of Europe that a college student leaves home after breakfast at 6-30 a.m. and goes home back for dinner after 9 p.m. He lives in his college for 14 out of 24 hours. He has his bath and midday food there. He has a place for study and amenities for recreation there. One does not know if our colleges could be transformed into Day Students' Homes. The tradition is not there; the staff has not been recruited with that auxiliary object in view. I would strongly recommend that in course of 5 years, Day Students' Homes be built in Calcutta which will provide reading-room facilities and have adequate bath and canteen arrangements for 12,000 students, which is 50% of the number of students who come from very indigent homes. Such Day Students'

Homes would admit to their privileges and amenities, students from all colleges in their neighbourhood on production of an identity card from the Principal, to be renewed every six months. Such Homes are also better run by *philanthropic* organisations under the guidance of a strong and representative Students' Welfare Committee. That an Iswarchandra Vidyasagar, a Gooroodass Banerjee, a Gangaprasad Mookerjee has risen to position of eminence in spite of grinding poverty, can be no excuse for inattention to the general body of students from poor middle class homes. I recommend that Government immediately appoint a Committee to prepare detailed estimates for building such Homes in Calcutta.

1.9. The poverty of students is reflected in food habits, incidence of illness and malnutrition from which about 43% of our student population suffer. Any efficient remedy that may be suggested now, will involve the State in a recurring expenditure which the State finance may not be able to bear. It is suggested that canteen service and accommodation may be provided free in the Day Students' Homes and food in the canteen subsidised, say, to the extent of 25%. In more fortunate countries, 70 to 100% of the students reading in Universities are maintained at the cost of the State. In our country the State may make a small beginning by building such Day Students' Homes in adequate numbers and giving generous subsidy for their efficient management. These Homes may well be the symbols of a new hope and faith which our young men have lost.

1.10. With the exception of the Government Colleges and a few others, the income of the colleges is derived mostly from the fees paid by students. The new University Act demands that the colleges, besides providing for the delivery of a certain number of lectures in each subject, should hold a minimum of tutorial classes in groups of not more than 25 students and make adequate provision for laboratory and practical work. The students who join our colleges are generally very good material. If they are properly looked after in a college with adequate residential facilities, they show wonderful progress in their studies. Every student sent up by the Ramkrishna Mission College at Belur for the I.A. and I.Sc. Examinations of the Calcutta University this year passed, ninety per cent. of them being placed in the First Division. This college does not believe that a casual association in crowded class rooms for 3 or 4 hours in the middle of the day is all that is necessary to develop intellectual life. Such life is fostered better by personal attention of teachers to students in a residential organisation. In the weaker colleges of Calcutta which are also numerically the larger

ones, the percentage of passes in the same examination varied between 30 and 45. This enormous wastage has got to be realised by the public and the educational authorities of Bengal. I have a feeling that if every student in Calcutta were given the facilities and attention that his fellow-students received in the neighbouring college at Belur, he would have fared equally well in the University examinations. They are not the unteachables which their adverse critics think them to be. Apart from other considerations, the need for prevention of this enormous wastage should weigh heavily with Government in coming to the succour of these colleges.

1.11. What form should that help take? If we exclude the Government colleges in Calcutta, the recurring annual expenditure for teaching in Arts and Science is Rs. 115 per student and for Commerce Rs. 90. More than 90% of this expenditure is met from Tuition fees paid by students. Nowhere good collegiate education can be given on self-financing basis. Again, big colleges mean big wastages. The Radhakrishnan Commission rightly observed that a college 'is like a living cell. Once it reaches a certain size it must either divide or die. The admission of a large number of students in response to popular demand without necessary staff, class room, hostel accommodation and equipment has made it impossible for most colleges to give full education to their inflated undergraduate population.' 'The number of undergraduate students in *Arts and Science* in no college should, therefore, exceed 1,500.'

1.12. On the above consideration, Calcutta requires at least 8 more colleges for men students and two for women students for undergraduate studies in Arts and Science Faculties. The All-India average contribution from public funds for undergraduate students is at present of the order of Rs. 100 per student. In the Presidency College, Government spends from its own funds Rs. 700 per student per year. The least that the Government of Bengal should do immediately, would be to make an annual contribution of Rs. 100 per student to a college, which agrees to reduce its admissions and improve its teaching arrangements in accordance with a plan to be approved by Government and the University. Each such (**big**) college will also require a capital grant of at least 5 lakhs of rupees to bring its accommodation, library and laboratory equipment up to an adequate standard.

1.13. There are 14,000 students in Calcutta who are either refugees* or belong to families who have been displaced from East Pakistan. It is a pity that the University of Calcutta and its colleges

* The number of refugee students is 11,700.



have received no help in the past from the Central or State Government for providing educational facilities to these refugee students. The Prime Minister of India on the eve of Independence declared that 'we think of our brothers and sisters who have been cut off from us by political boundaries and cannot share at present in the freedom that has come. They are of us and will remain of us whatever may happen and we shall be sharers in their good and ill fortune alike.' We would never believe that the Prime Minister held out hopes whose fulfilment, his colleagues and agents were intended to defer or deny. The ten new colleges recommended for immediate establishment in Calcutta should be a legitimate charge on the Budget of the Rehabilitation Ministry both for capital and recurring expenditure for a period of at least five years. It will involve that Ministry at least in a capital expenditure of 1.5 crore of rupees and a recurring expenditure of Rs. 25 lakhs a year.

1.14. The education of students reading in the commerce classes stands on a different footing. This is professional education, and should continue to be provided in evening classes for students who work as apprentices or earn a part of their living as wage-earners in day time. These classes are economically conducted now in the evenings, in buildings which are being used as day colleges for men students. This practice should continue. But equipment for practical training should be provided on an adequate scale. An annual grant of Rs. 50 per student should be given by the State for providing library and laboratory facilities to these students.

1.15. The All-Bengal College and University Teachers' National Cadet Conference as early as 1945, unanimously resolved that military training should be made compulsory for college students. It would go a long way towards the development of civic virtues, and the habits of bodily hygiene and standards of sanitation. The Radhakrishnan Commission pointed out that, apart from consideration of any emergency that might arise, "Cadet Corps training is also very useful in preparation for peaceful pursuits. It inculcates discipline in an impressive way in that it teaches self-control and poise, the co-operative spirit, the ability to give and take orders and above all a sense of responsibility" which is the foundation of character. The National Cadet Corps should be expanded by at least 10000 men. The objective should be that students who enjoy the amenities of the Day Students' Homes mentioned in para. 1.8, may all join the Corps.

1.15.A. It is also a matter for careful consideration, if examinees for the B.T. degree should be required to work for two months in Social



Service Camps after their examination, in order to qualify themselves for the award of the degree.

1.16. As I write this note, my sorrow deepens. Many recent observers have found in Indian children the friendliest they have ever seen. "They trust people, their smile is wholehearted, warm and gay. They have more than just passive friendliness; they are intuitively quick to understand how to make a genuine contact and establish a relationship... they run off to collect flowers to stuff in your pockets or put in your hair... with the hospitality of their elders they offer you food and drink from whatever they have..... These are some of the things I saw in young children..... A gloom however settles down on adolescents like a fog and warmth goes out of their faces."* This was no less true 35 years ago when the Saddler Commission commented on the joylessness of Calcutta students' life—as follows—"Surrounded as he is by manifold anxieties and housed under dreary conditions, the student tends to become moody, depressed and absorbed in himself and his prospects. He needs, therefore, more than other students of the same age, recreation and diversion. He has few interests to take him out of himself and give him points of contact with other men. He rarely has any hobbies; possibly because hobbies are expensive both in time and money. Too often he has no older and experienced man to turn to for guidance through these years of anxiety and depression. It is not surprising therefore if in moments of despondency he falls a victim to uncontrollable excitement, sometimes of the most serious and violent nature. It is at such periods of life that young men of all races need physical exercise and recreation, but these are not readily available to the Bengali student." If, at all, the situation has very much worsened. An independent National Government has now been in office for seven years. There is no evidence that we have thought seriously of this problem. I am anxious that leaders of Bengal should find an immediate solution of this difficult problem. Disaster lies ahead if the smiling children of middle class homes are allowed to grow into moody, suspecting and despairing youth, for lack of care, sympathy and guidance. Such youth have been found prone to march to the tune of would-be Dictators and have been instrumental in destroying democratic progress in other lands. May we be spared that experience!

J. C. GHOSH

* Lois Barclay Murphy—In the minds of men, Basic Book Inc. 1953.

CHAPTER I

STUDENTS' LIFE AND WORK AT HOME

1. That the field of education in West Bengal has been marked by acute problems in recent years, is well known. The reasons can be traced to deeper causes in the economic and social maladjustment that has turned West Bengal into a problem State. But a clear picture of the present state of things did not emerge due to lack of adequate information on the conditions of life of the student community. The need of such information before suggesting any solution to the various problems, is obvious. It was with this object of obtaining factual information that the Vice-Chancellor of the Calcutta University, Dr. J. C. Ghosh, initiated a survey of the conditions of work, study, health and nutrition, etc., of the students in Calcutta colleges.

2. The survey was made possible by the co-operation of the Post-Graduate Departments of Statistics, Anthropology, Psychology, Social Sciences and the Board of Health. To enlist the co-operation of the Principals of the colleges concerned, the Vice-Chancellor met some of the Principals and discussed the problems with them who willingly agreed to render all possible help.

3. After necessary preliminaries, the field investigation started towards the middle of April, and was carried out by the Post-Graduate students of the departments of Anthropology and Statistics under the guidance of the Heads of the departments assisted by some colleagues. Statistical analysis of the results was done by the department of Statistics.

4. In order that the data collected might present a correct picture of the conditions in which students live and work, a random sample was taken of the first and the third-year boys in the student population. As the Degree Examinations were then being held and the Intermediate Examinations had just been completed, it was not possible to contact the second and fourth-year students. Rules of admission in colleges, the standard of examinations and the general economic condition had, however, not been appreciably different in the previous years. The student popu-



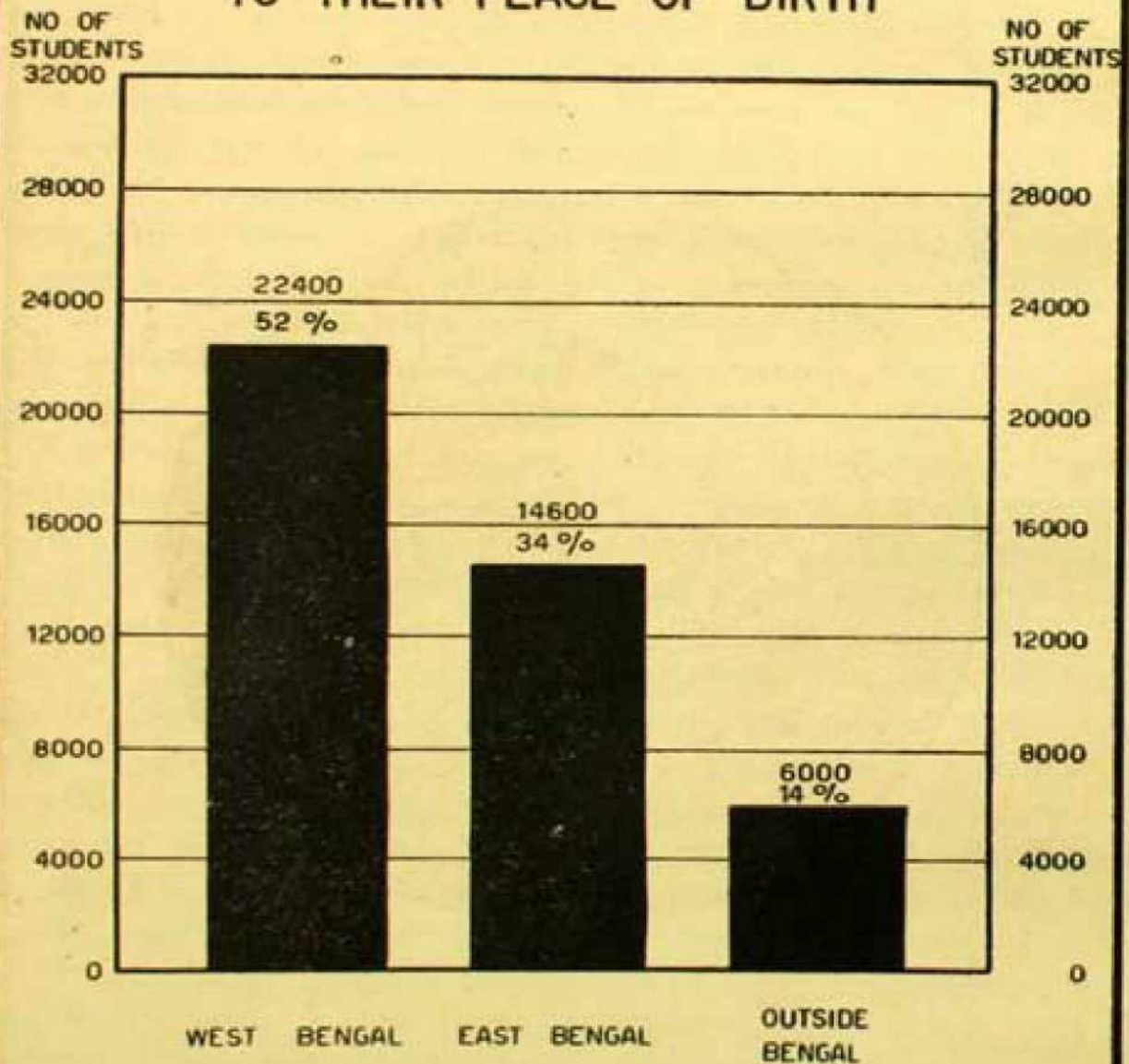
iation in the second and fourth-year classes which could not be investigated was thus practically of the same composition as in the first and third-year classes. Random sampling of first and third-year students may, therefore, be held to have given a representative sample of the entire student population in Calcutta, as found in affiliated and constituent colleges. The term 'students' will be used hereafter in this report to refer to the student population in the institutions mentioned. A list of the colleges from which samples were drawn will be found in Appendix. Although samples were drawn also from girls' colleges, only a limited number of cases could be investigated for girl students, as only one girl investigator was available at the time. Recruitment of additional women investigators was not possible as the survey was initiated only a fortnight before the summer holidays.

5. For the purposes of enquiry, a five per cent. sample of all first and third-year students was selected by the technique of random sampling. Twenty-four investigators were trained in the exact genealogical method of enquiry and given a demonstration and practice drill before being released for field work, to ensure accuracy in collection of data. The selected students were interviewed for information concerning self and the family information was collected from the head of the family as far as practicable. The students attending classes from outside Calcutta, a long way off, were contacted in their respective colleges. The forms when filled in were checked daily as they came in, and faults of investigators pointed out and corrected.

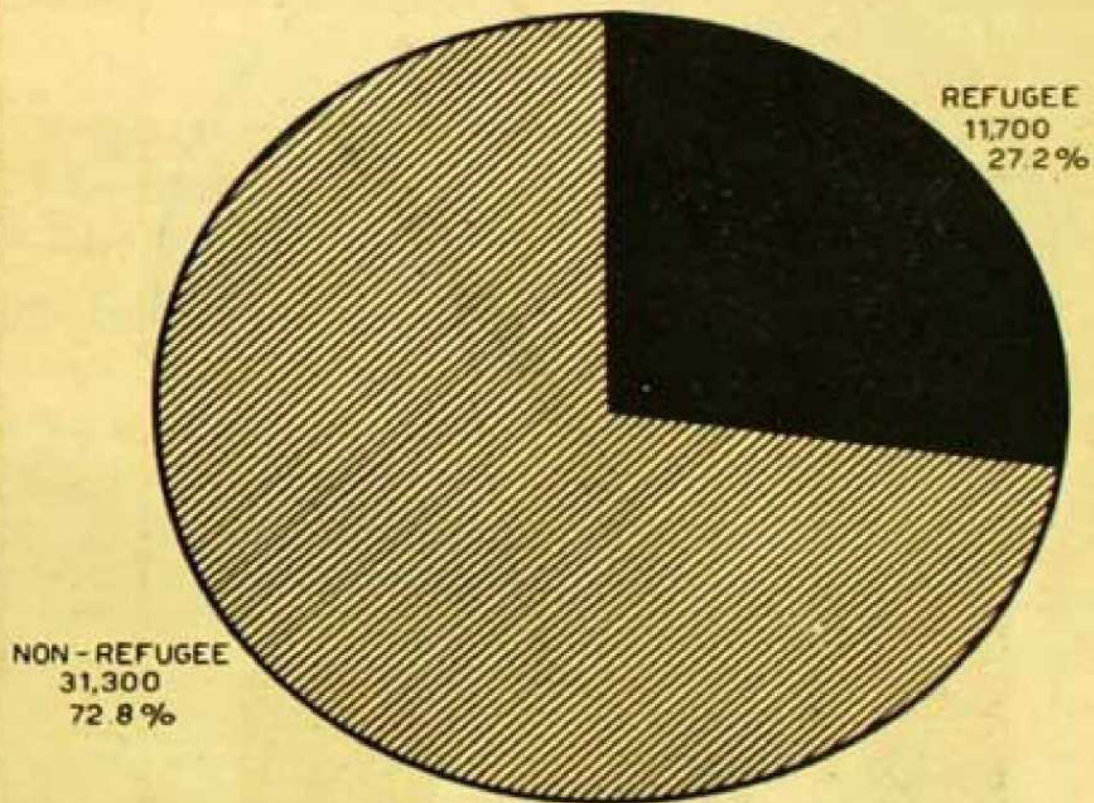
6. A little over four per cent. of the total student population of boys only was actually studied. The closing of all colleges in the last week of April, and partial dispersal of students during holidays prevented completion of investigation of the remaining one per cent. of students, in the sample drawn. The size of the sample investigated is 859, of whom 575 are first-year and 284 third-year students. It is considered adequate for the purposes of the enquiry.

7. Calcutta is a cosmopolitan city and a great centre of commerce and industry. Men from other parts of India have come to the city in large numbers, a good proportion with their families. The high prestige of the University of Calcutta also attracts a fair proportion of students from outside the State. The total number of students enrolled in boys' colleges in Calcutta is a little over 43,000. Of these, as many as 22,400 (52%) have their birthplace in West Bengal. Nearly one-third—about 14,600 (34%) are of East Bengal; this includes 11,700 (27%) refugees. The remaining 6,000 (14%) come from outside Bengal.

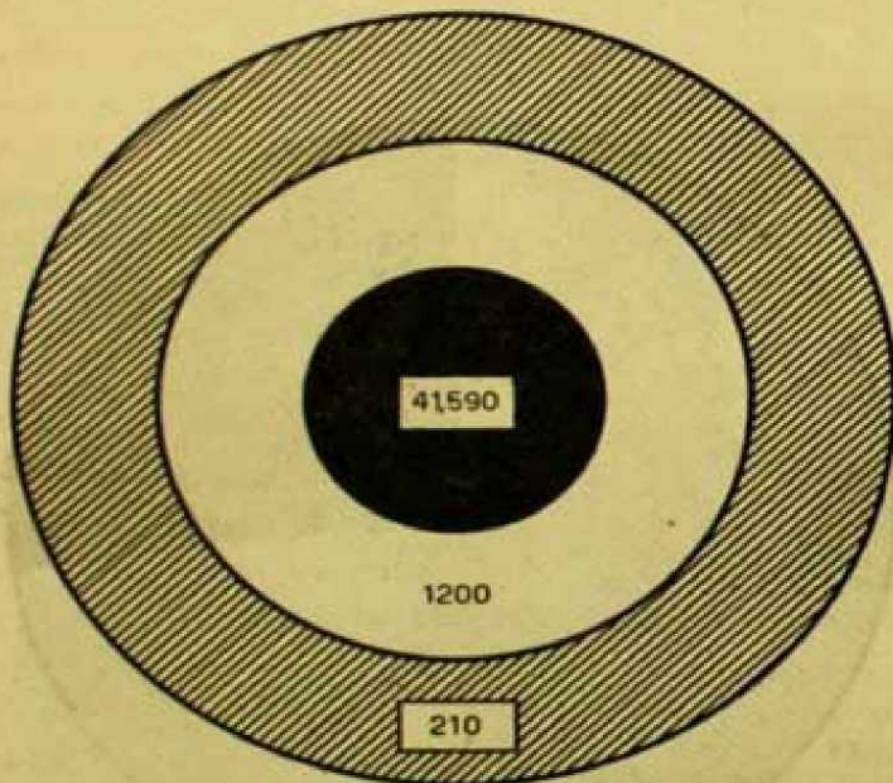
DISTRIBUTION OF STUDENTS ACCORDING TO THEIR PLACE OF BIRTH



PERCENTAGE OF REFUGEE (REGD) STUDENTS
IN CALCUTTA



STUDENTS ATTENDING CALCUTTA COLLEGES FROM FAR AND NEAR



DISTANCE FROM CALCUTTA
(IN MILES)

0 - 10



10 - 20



20 - 30



8. Ninety per cent. of the students are staying in or near about Calcutta. About 10 per cent. come from outside by train or other means of transport. For its large population, the size of Calcutta is somewhat small. If, however, suburbs are included, and also the town of Howrah across the river, it is found that 41,600 students (96%) live within a radius of about 10 miles from Rajbhavan.

9. A little over 30,500 (71%) of students stay with their parents in Calcutta and its suburbs. Another 3,400 (8%) stay with near relatives like brother, uncle or sister, in the absence of parents. Another 4,700 (11%) live with distant relatives. Slightly less than 2,200 (5%) stay in hostels and an equal number (5%) in messes, owing to lack of accommodation in hostels. The expenses for boarding and lodging in messes differ very little, being Rs. 47 per month, from that in hostels, which come to Rs. 49 per month. In this connection, it is of interest to note that 2,600 out of the 6,000 students from outside Bengal (43% of their own number, and 6% of total students) live with parents in Calcutta.

10. The largest bulk of students 29,700 (69%) are permanent residents of Calcutta itself, their parents or near relatives being settled refugees or more commonly being on regular work in Calcutta. The absence of facilities of study in colleges near their homes and the greater likelihood of earning money to meet their educational expenses have been important factors in attracting students to Calcutta. Actual absence of any college at any place nearer than Calcutta has been given as reason for attracting 2,600 (6%) students to the educational institutions of the city. Greater opportunities to meet expenses of education, by private tuition or by working in part-time jobs, has been given as the reason for coming to Calcutta by nearly 2,200 students (5%). The proportion is lower in the Intermediate (3.1%) and higher (8.3%) in the Degree stage. The higher figure in the second group is due to the fact that jobs of any kind whether as tutors or in firms, are available more easily to those who have passed the Intermediate Examination than to School Final Certificate holders.

11. India is an agricultural country yet and although West Bengal is highly industrialised, nevertheless, the majority of the earners still depend on agriculture and allied occupations (57%). "Middle Class" occupations like service, profession (teaching, medical, legal, engineering, etc.) and business absorb only a minority of the earners (27%). This latter category however supplies 88% of the students (actually 37,800)

Causes of students' migration to Calcutta colleges.

Social and economic conditions of students.

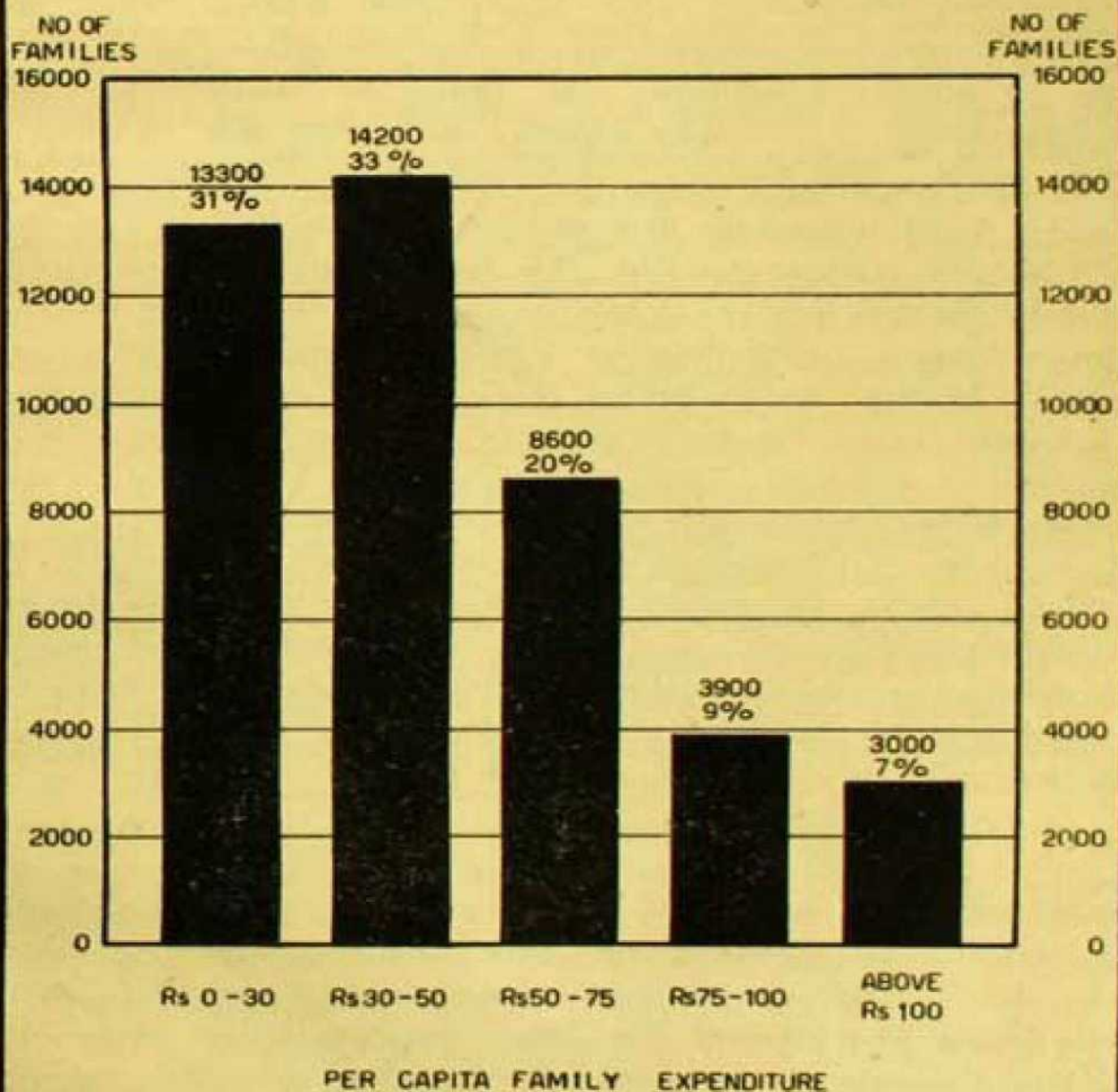
students) to Calcutta colleges. Cultivation and miscellaneous occupations are followed by the families of 1,300 (3 per cent.) and 2,200 (5 per cent.) students respectively. Land-owning which includes non-cultivating owners, jotedars and zemindars, accounts for 1,700 (4 per cent.) students. *Higher education in the city is therefore practically confined to the middle class.*

12. The expenditure pattern has been considered a more reliable guide to the economic condition of the families. The chart indicates the distribution of students by expense level. As many as 13,000 students (31%) come from families with a *per capita* expense of Rs. 30 and less per month. If Intermediate students are considered separately, it is found that 34 per cent. of them come from this expense group while only 26 per cent. were in the Degree classes. Evidently, all these families, who do not have a sufficient income to meet all the needs for adequate living conditions, have sent their boys to college, stinting themselves of necessities. Such scraping together of meagre resources to enable the boys to continue their education in the Degree stage has evidently been possible to a less extent for these families. Over half of the families of students, numbering 22,800 (53 per cent.) belong to expenditure groups Rs. 30 to Rs. 50 and Rs. 50 to Rs. 75 *per capita*, i.e., those who can just meet the requirements of middle class family as well as those who can provide some "comfort" in addition. The number of persons in all higher income groups is small in this country and State, and explains the low percentage of students from higher expenditure groups. These are a little over 8 per cent., numbering 3,900 for the level Rs. 75 to Rs. 100 and about 7 per cent., numbering 3,000 for "Rs. 100 and above" group. A significant feature of the figures for distribution of first-year and third-year students in the different expense groups is noted below :

- (a) For expense group below Rs. 30 *per capita*, i.e., that below the level of minimum living income, the percentage of students in the third-year (of their own total) is invariably lower than that in the first-year.
- (b) For the combined expense group Rs. 30 to Rs. 50 and Rs. 50 to Rs. 75 *per capita*, the proportions in the two years are about the same.
- (c) For the two expense groups above Rs. 75 *per capita*, i.e., of the families who are well off, the proportion in the third-year is about fifty per cent. higher than that of the first-year in each of the two units.

The extent to which higher education is inaccessible to the poorer sections of the community is clearly indicated by these figures.

DISTRIBUTION OF STUDENTS' FAMILIES BY EXPENDITURE LEVEL



13. The economic conditions as revealed above would explain the need of students for supplementing their resources by part-time or whole-time jobs. The opportunities for such work, though limited, can be availed of mainly due to the organisation of evening classes in commerce and also to a small extent in arts and science courses. The present survey included the students of the Day departments as well as the late afternoon and evening sections of the Commerce and other departments of the colleges. Though these figures have not been separately tabulated, the total figures show that 6,500 students work in whole-time jobs (15%), while nearly 4,700 students (11%) are engaged in part-time occupations. Among the whole-timers 3,400 study in Commerce departments; the figures for students in part-time jobs reading in Commerce departments is 1,300 only. Part-time workers include 3,400 students in Arts and Science departments.

14. About 12% of the first-year students as against 20% in the third-year work in whole-time jobs. The higher figure for the third-year is probably due (a) to those already in work studying for the B.Com. degree to improve their prospects, (b) to the greater difficulty in continuing education in the Degree stage without earning, (c) to the much smaller chance of a student who has passed only the School Final Examination, of getting a job. The same trend is observed in the lower and higher educational groups in the case of students who work in part-time jobs. As against 9% in the first-year, as many as 15% in the third-year work in part-time occupations. Students who are already employed in whole-time jobs seem to go in more for the B.Com. degree while those not so employed tend more to go to general studies. Probably employed persons find the B.Com. degree likely to advance their promotion. The others work to prosecute their general studies.

15. Calcutta was once referred to as a city of palaces; it is now noted for its dirty overcrowded habitation. Except
 Conditions of residence and study. certain areas developed throughout by the Calcutta Improvement Trust, streets of finely built structures of brick are found to run close to bustees with their khola-tile huts and tinsheds, with kutcha floors. The mass of the student population lives in modest brick-built houses, a small proportion in better type structures, and also in the hostels, and not an insignificant number in bustees, in huts with floors of beaten earth. Including hostels and messes it is found that 33,100 students (77%) live in brick-built houses with cemented floors and pukka roofs. Another 5,600 students (13%) stay in houses with tiled or tinshed roofs. The remaining 4,300 students live in kutcha huts.



16. Living conditions in the pukka structures are not however always satisfactory. The average floor space *per capita* (leaving out kitchen and bath room) in the households of 23,600 students (55%) varies near about 24 square feet excluding verandahs, if any. It is just sufficient for a cot or *charpoy* of good size. Another 7,700 students live in households with a floor space of 55 square feet *per capita*, which is the minimum needed for one person in a combined study and living room.

17. With the distribution of the *per capita* floor space noted above, it is not surprising to find that 29,200 students (68%) share the bed room with more than one person and that only 7,700 boys (18%) have a bed room of their own. A slightly smaller number 6,400 (15%) have a study of their own, which may in most cases be the bed room (enquiries were not made separately on this point), while 8,600 students share it with others. As many as 27,500 students (64%) read in rooms used also for other purposes. If it is an outer room of the house, hut or flat, it serves as the room for visitors and also, generally as a bed room at night, besides being the common study of those who read in schools or colleges. An inner room when used as bed room and study is also used by the womenfolk of the house for various domestic duties. In view of the overcrowding revealed by the details of floor space available *per capita*, it may be surmised that undisturbed study is not generally possible in a room used for "other purposes" as well.

18. Text-book shortage also affects study. Nearly 18,500 students (43%) are able to buy the essential text-books. But as many as 14,600 students (34%) have to supplement purchase by borrowing books. As many as 4,700 (11%) students have to depend on books lent by libraries and fellow students, while all these sources of supply proved inadequate for 5,200 students (12 per cent.). The proportion of such students varies in the Intermediate and Degree stage. About (10%) of students in the Intermediate classes and a little over (15%) in the Degree classes are unable to secure large numbers of necessary text-books through any of the agencies enumerated.

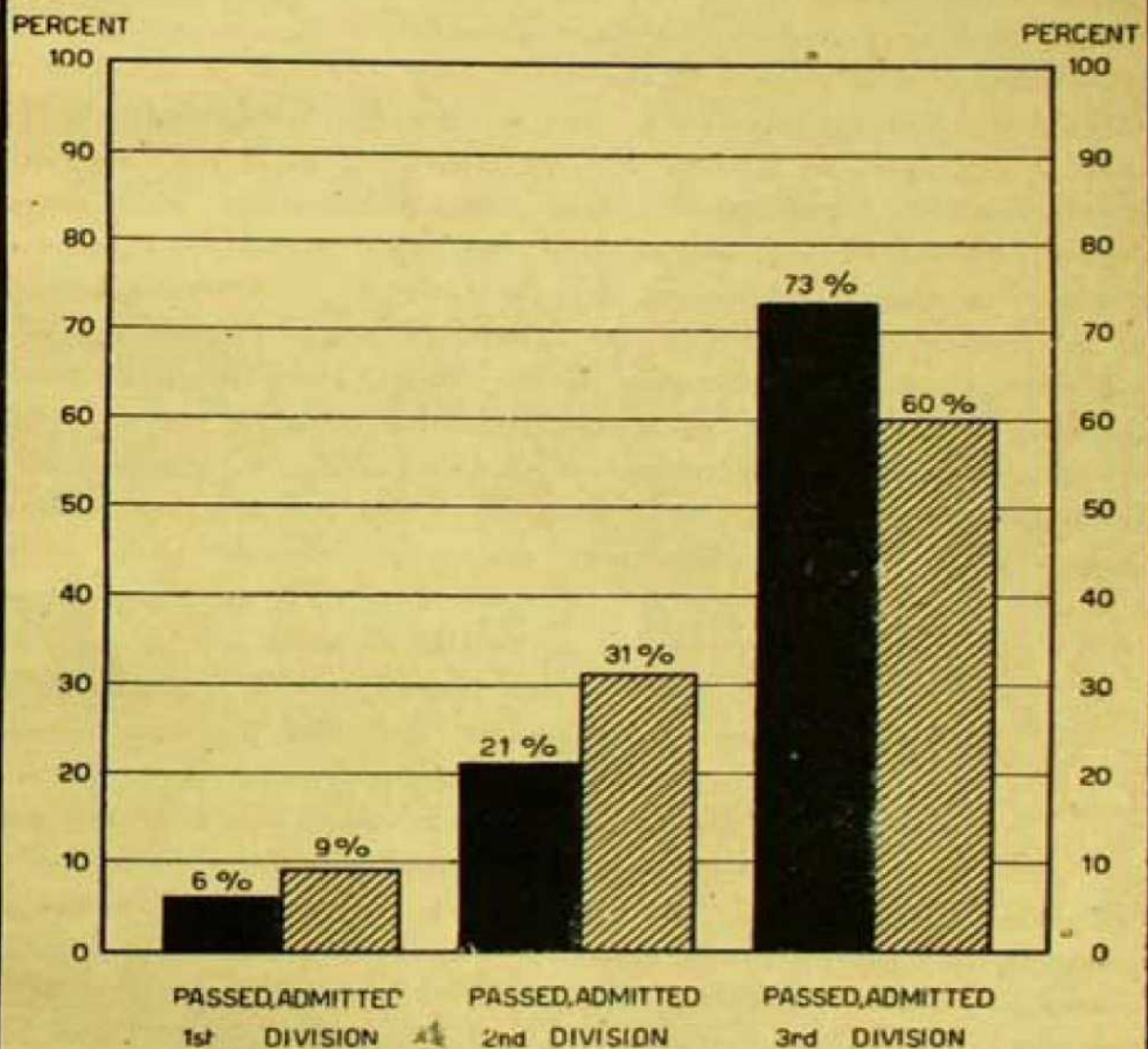
19. According to statements by students, which are not however based on records kept by them, the maximum number of hours daily devoted to study outside College is six and the minimum is two. About 31,400 students (73%) do not devote any time to earning money for their keep. The number and proportion of students working a few hours or whole time (six hours) to earn money correspond to the figures already noted as in part-time or whole-time jobs.



20. In the above circumstances, it is not surprising to find that nearly 12,900 students (30%) expressed willingness to give up study for jobs with a salary between Rs. 100 and Rs. 200 or a little more per month. As regards their proposed career after completion of study as high a number as 18,900 (44%) had no definite ideas. This may be ascribed to the uncertainty of obtaining employment in our present economy. The Engineering profession is the first favourite among professions, as many as 9,900 students (23%) stating this to be their choice of a future career. The development of various River Valley projects and Industries has probably supplied the incentive towards selection of this line of work. The medical profession is a bad second, selected by only 3,900 students (9%) as their future objective. About 3,400 students (8%) aim at Government jobs. It may be observed that this does not support the general impression about the hankering of students for such posts. "Business" comes next in order of preference, being selected by 2,600 students (6%). The legal profession claims 1,300 future aspirants (3%). Teaching as a job attracts a slightly larger number, about 1,700 (a little over 4%) while Higher Research is the ambition of the same number as those who want to be legal luminaries in future (3%). As is to be expected, both Teaching and Higher Research are selected by a much large number of students in the third-year (about thrice the number) than in the first-year.

21. In considering the composition of students in colleges classified by results at different examinations, the percentage of students who passed the School Final, and Intermediate Examinations in different divisions has to be taken into account. Although of the boys who passed the School Final Examination last year only (6%) were placed in the First Division, the proportion of First Division students in the first-year at college is 9%. Again while the percentage of passes in the Second Division in the School Final was 21%, there are in the Intermediate classes 31% Second Division boys. Thus it is apparent that boys who secure 50% or more marks in their School Final Examination, find their way in larger numbers to the colleges. But for Third Division, the figure for the School Final Examination is 73%, while the proportion of such students in college is a little over 60 per cent. In the case of First Division boys the preponderance in colleges is of the order of 50%; in the Second Division also the position is nearly the same. For Third Division boys the admissions are 20% less than the proportion of passes in this category.

DISTRIBUTION OF STUDENTS PASSING THE SCHOOL FINAL AND THOSE ADMITTED IN COLLEGES BY DIVISIONS



in the School Final. The actual numbers, in the first-year in the colleges, of boys who passed in the First Division is nearly 1,400 and for the Second Division it is 4,300 only. The rest numbering 8,300 passed in the Third Division.

22. In the Degree classes, the position changes due to two reasons. First of all, a good deal of sorting occurs at the level of the Intermediate Examination; also a fair number of good students leave the general line for admission in Medical and Engineering colleges. In the first-year class of colleges it is found that over four-fifths (83%) of the students who are admitted had passed the School Final Examination at the first chance. In the third-year class the proportion of such students rises to 96% *i.e.*, practically all the students who have come to this level had passed the School Final Examination at the first attempt. The results of the third-year students at the previous Intermediate Examination show that two-thirds passed it at the first chance. Moreover, as against 21% of passes in the First Division at the Intermediate Examination, 17% of third-year students in colleges are First Division boys. Similarly, against 58% of passes in the Second Division, one finds 55% Second Division boys in the third-year classes. The percentage of Third Division students in the Degree classes is 18 against 21% passes. As many as 10% of the students in the Degree class come after passing the Compartmental Examination. The highest proportion of failure in one subject, it may be noted, is in English which still carries 300 marks out of a total of 1,000 for the Intermediate Examination. The actual figures for students in the third-year classes are a little less than 1,200 who passed the Intermediate Examinations in the First Division, 3,700 in the Second Division, 1,200 in the Third Division, and 700 in the Compartmental Examination.

23. It was suggested to investigate how far the conditions of students with First Division results at the previous examination differed from those of the general body of students. The number of such students in the sample was small being 59 among the first-year and 46 among the third-year students. The conclusions based on such small numbers may not be quite valid; nevertheless, certain general trends may be justifiably observed. It is revealed that the economic conditions of such students are as stringent as the general body of students. They are affected more or less to the same extent due to lack of resources—shortage of text-books, lack of facilities for undisturbed study, etc.

CHAPTER II

FACILITIES OF TEACHING IN CALCUTTA COLLEGES

24. The survey undertaken on the initiative of the present Vice-Chancellor reveals that there are in all 45,804 Undergraduate and Intermediate students (boys and girls) receiving their education in 28 colleges in the Metropolis. These 28 colleges broadly speaking may be divided into four different categories :—

- (1) Purely day colleges,
- (2) Colleges working in several shifts,
- (3) Purely Girls' colleges, and
- (4) Commerce colleges.

25. The purely day colleges—seven in number—are given in Table I. They are mostly colleges for male students, three of them marked with asterisks being co-educational. Colleges working in several shifts (Table II)—eight in number—are of a varied character. Most of them work in three shifts, usually working as an Arts and Science college for women students in the morning shift, as a Commerce college for male students in the evening shift and as an Arts and Science college mostly for boys, but some co-educational, in the day shift. Purely Girls' colleges (Table III) are ten in number and all work as a day college. They are all small-sized colleges and comparatively speaking more efficiently run as may be judged from their examination results shown in Column 12 of the Tables. Lastly, Table IV gives the purely Commerce colleges—three in number.

26. Informations about (a) the size of the colleges as judged by the number of students reading in them, (b) the facilities offered by them as revealed from (1) the per capita expenditure, (2) student-teacher ratio, (3) the available floor space and (c) their efficiency as may be inferred from the examination results, are all given in the different columns of the respective Tables. It will be seen therefrom that excepting the 5 Government colleges marked with (+), the Gokhale Memorial College and the St. Joseph's College, the per capita expenditure on the students is very low, being round about Rs. 115 and on an average 95% of these costs are derived from student's fees. This may be compared with the per capita expenditure of Rs. 866 in the Presidency College, where the students obviously are offered far better facilities of education.

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27. The University has been trying since 1952 to enforce the rule regarding tutorial classes in the compulsory subjects, *viz.*, English and Bengali, as in their opinion these are the two subjects which require most tutorial assistance and at first fixed that "not less than 20 tutorial classes should be held in each of these subjects in each session, the strength of a tutorial class being 25". But practically all the colleges pleaded their inability to hold tutorial classes in Bengali and prayed for reducing the total number of such classes in English. A revised circular was therefore issued reducing the total number to 30 in the full period of respective courses. It is doubtful how far with the present strength of the staff in English (shown in Column 6 of the Tables) it is possible for some of the colleges to observe even this rule.

28. Besides tutorial facilities, the Library and the Laboratory of a college provide two other indices of teaching facilities. The criterion for the former is the number of available books and that of the latter is the expenditure incurred by a college for lecture demonstration and per capita cost on practical classes. The latter figures are not available but when the total per capita cost is as low as Rs. 115, one can easily imagine how limited are the facilities of science teaching in these colleges. The figures relating to Library are available and are given in Column 9 of the Tables. From the books-student ratio given in Column 10 it will be seen that here too there is an appalling restriction of facilities. It has not been found possible to collect the figures relating to the space provided in the Library for reading purpose. The space, however, is very very limited and the students have little opportunities of using the Library.

29. In 1952 the University appointed a committee to enquire into the cause of heavy failures. Amongst other things they reported that an indiscriminate and unrestricted admission of students due to financial reasons resulting in overcrowding is one of the main causes. A glance in Column 8 of the Tables giving the floor-space/student ratio will convincingly show how very overcrowded some of the colleges are. According to the University regulations the maximum size of a class is of 150 students. The above ratio seems to suggest that even this number is possibly exceeded. Thus individual attention is out of the question and lecturing in small groups of, say 40, is also not possible on account of inadequacy of staff and accommodation. Mass lecturing is the only method of teaching that is adopted and these fall flat upon the students yielding no results. It also appears that teaching of English in the school stage is so inadequate, that these lectures to large masses of students in English language are in many cases not understood.



Overcrowding also enforces a lack of personal touch between teachers and students without which the maintenance of discipline is almost impossible.

30. As regards facilities for physical education it is easy to imagine that in a crowded city like Calcutta the facilities for outdoor sports are bound to be very limited. But as the college authorities are fairly alive to the needs of such facilities, almost every college maintains a Physical Instructor and has got a gymnasium in the college compound where the students, particularly the students of the hostels attached to such colleges, regularly take their exercises. But so far as arrangements for outdoor sports go, there are only three colleges which have compounds big enough to permit the boys to play within the compound. Almost all the other colleges have got their allotted fields in the maidan or elsewhere, either singly for themselves or they share it with some other colleges. As regards women's colleges, a few are fitted with their own gymnasium and have arrangements for small-area games within the college compound. The accompanying Table V gives in a nutshell the nature of such facilities.

TABLE I—Day Colleges

1	2	Number of Students				3	4	5	6	7	8	9	10	11	12
Name of the College	Inter	B.A. & B.Sc.	B.Com.	Total	Expenditure per capita excluding block expenditure.	Percentage of income derived from fees in nearest integer.	Total floor space in square feet.	No. of teachers		Student Teacher ratio in integer.	Space Student ratio in integer.	No. of books in the Library on March 31, 1951	Books Student ratio in integer	No. Sent up for the last inter. exam.	Percentage of passes.
								in Reg.	Total						
1. St. Joseph's	44	—	—	44	466	47	3,545	1	6	7	50	4,340	91	17	62
2. Sanskrit †	37	36	—	73	1323	5	1,675	**	9	8	45	28,562	21	16	69
3. Central Calcutta †	337	94	—	431	608	17	15,110	6	45	10	35	17,308	40	73	77
4. * Presidency †	497	533	—	1030	866	19	76,622	8	95	11	88	74,441	73	225	93
5. * St. Paul's	551	152	—	703	244	83	9,343	5	34	21	13	10,728	15	263	56
6. St. Xavier's	835	336	271	1442	217	62	—	9	60	21	—	35,820	25	345	64
7. * Scottish Church	1129	636	—	1765	235	90	21,340	8	63	23	12	27,189	17	504	58

* Compulsory and modern subjects taught in the Presidency College.

† Taking into account 1562 students of the Commerce Department of the main College.

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UNDERGRADUATE STUDENTS IN CALCUTTA

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TABLE II—Colleges working in Shifts

1	2	Number of students			3	4	5	6		7	8	9	10	11	12
Name of the College	Inter.	B.A. & B.Sc.	B.Com.	Total	Expenditure per capita excluding block expenditure.	Percentage of income derived from fees (nearest integer).	Total floor-space in square feet.	No of teachers		Student teacher ratio (nearest integer).	Spare Student ratio at max. concentration.	No. of books in the Library on March 31, 1954.	Books Student ratio (nearest integer).	No. sent up in the last Inter. Exam.	Percentage of passes
								in Eng.	Total						
8. Anantash (General)	3336	850	469	{ D. 3367 E. 1258 M. 1751	131	95	31,036	18	130	49	10	18,901	3	1,075	49
Do. (Women's)	1267	454		{ D. 1390 E. 107	100	95	6,637	8	45	31	5	2,971	2	703	38
9. Charuchandra	1199	101	157	{ D. 1390 E. 107	100	95	19,000	15	152	22	5	11,712	2	2,036	41
10. City (General)	2393	1864	952	{ D. 4210 E. 1029 M. 576	102	97			61	9					
Do. (Women's)	362	214		{ D. 770 E. 593 M. 150	121	85	9,142	7	49	31	11	2,300	2	440	49
11. Manindra Chandra	1175	247	91	{ D. 770 E. 593 M. 150	95	96		4	26	20	14	4,297	5	185	61
Do. (Women's)				{ D. 410 E. 360	115	47	8,657								
12. Anandram Jaipuria	554	33	153	{ D. 410 E. 360	115	47									
13. Surendranath (General)	2121	259	...	{ D. 2113 E. 757 M. 317	122	100	26,755	8	71	45	7	17,391	5	2,337	37
Do. (Women's)	621	165		{ D. 2113 E. 757 M. 317	122	100									
14. Vidyasagar	2379	1012	228	{ D. 3140 E. 479	120	100	27,094	15	110	33	9	19,542	5	1,325	39
15. Bangabasi	3153	935		{ D. 4138 E. 2103 M. 743	99		21,476	16	141	52	5	14,214	2	2,322	29
	810	1140	219	{ D. 4138 E. 2103 M. 743	99										
	530	213	219	{ D. 4138 E. 2103 M. 743	99										

TABLE III - Women's Colleges, Day only.

1	2	3	4	5	6	7	8	9	10	11	12				
Name of the College	Number of students				Expenditure per capita excluding book expenditure	Percentage of income derived from fees in nearest integer	Total floor space in sq. feet	No. of teachers		Student Teacher ratio in nearest integer	Space Student ratio in nearest integer	No. of books in the Library on March 31, 1964.	Books Student ratio in nearest integer	No. sent up for the last Inter. Exam.	Percentage of passes *
	Inter.	B.A., B.Sc.	B.Com.	Total				in Eng.	Total						
16. Bethune†	467	181	—	668	447	94	33,850	5	24	5	—	14,212	21	202	76
17. Gokhale Memorial	90	—	—	90	447	94	33,850	2	20	5	—	2,822	22	27	89
18. Lady Brabourne†	440	206	—	646	554	—	6,100	6	44	15	10	16,212	25	183	92
19. La Martiniere	1	—	—	1	—	—	338	1	6	—	—	—	—	—	—
20. Loreto House	120	54	—	174	478	—	6,842	4	26	7	40	4,335	25	52	85
21. Muralidhar	252	74	—	326	105	93	—	3	17	19	—	2,026	6	94	61
22. South Calcutta	197	39	—	236	192	72	2,610	3	16	15	11	2,616	11	85	63
23. Victoria Institution	495	128	—	623	97	—	11,441	3	28	22	18	3,801	6	222	58
24. Women's	195	59	—	254	156	69	2,623	3	20	13	10	—	—	79	67
25. Women's Christian	—	—	—	219	247	65	2,060	4	18	12	9	—	—	39	62

TABLE IV—Commerce Colleges

1	2	3	4	5	6		7	8	9	10	
					No. of teachers						
					Eng.	Total					
Name of the College	Number of Students		Expenditure per capita excluding block expenditure	Percentage of income derived from fees in nearest integer	Total floor space in sq. feet	No. of teachers	Student Teacher ratio	Space Student ratio	No. of books in the Library	Books Student ratio	
	Inter.	B.Com., Total									
(26) City College Commerce No. I Do. No. II	Mor. 1116	637	1753	100	15,500	22	140*	43†	3 } }	18,514	4
	Eve. 1018	945	1963								
	Eve. 337	408	745								
(27) Surendranath Commerce	Eve. 1678	626	2304	100	12,563	8	62	37	5	4,201	.
		51	51		4,296	2	25††				
(28) Goenka College											

* Total No. of teachers including those associated with the Commerce Department of the main College.

† Taking into account 1562 students of the Commerce Department of the main College.

†† Also participate in school teaching.

Table V—Statement in regard to Gymnasium, Play ground and Swimming facilities in Calcutta Colleges

Name of the College	Gymnasium Location	Play-ground Location	Swimming Location
(1) Asutosh College	College compound.	Maidan. Shares with another College.	No facilities
(2) Charuchandra College.	..	Uses Lake ground by arrangement.	do.
(3) St. Xavier's College	Hostel compound.	College compound also shares with Maidan Clubs.	do.
(4) Central Calcutta College.	Play-ground Pavilion (32, Goraohand Road).	Private. Shares with School and an other College.	Swimming tank
(5) Goenka College of Commerce.	..	Maidan. Shares with others.	No facilities
(6) Bangabasi College	Hostel compound.	Maidan. Shares with others.	..
(7) Surendranath College.	Hostel compound.	No play-ground	..
(8) Surendranath College (Commerce).	Hostel compound.	No play-ground	..
(9) St. Paul's College	College compound.	College compound	Swimming bath in college compound under repairs.
(10) City College	Hostel compound.	Marqus Square (under repairs).	Swimming by arrangement with local clubs.
(11) Vidyasagar College	Hostel compound.	Marqus Square (under repairs).	Swimming by arrangement with local clubs.
(12) Presidency College	College compound.	College compound	..
(13) Sanskrit College	College compound.	No play-ground	..
(14) Scottish Church College.	College compound.	Manicktalla	..
(15) S. A. Jaipuria College.	College compound.	No play-ground	..
(16) Maharaja Manindra Chandra College.	College compound.	No play-ground	..
(17) Bethune College	College compound.	Ground for small-area games within college compound.	..
(18) Lady Brabourne College.	College compound.	..	..
(19) Victoria Institution	College compound.	..	..
(20) Gokhale Memorial College.	College compound.	..	..
(21) Loreto	College compound.	..	..
(22) Muralidhar Girl's College.	College compound.	..	..
(23) South Calcutta Girls' College.	College compound.	..	..
(24) Asutosh College	Gymnasium	Hazra Park small area games.	..
(25) Women's College	..	..	..
(26) Women's Christian College.	..	..	..

CHAPTER III

NUTRITION AND HEALTH

31. The Students' Welfare Committee, now the Board of Health, examines the health of 1st and 3rd-year students attending Calcutta colleges every year. The number of students examined annually is about 3,000. The health examination has until now been voluntary. The students examined during 1954 belonged to the same groups of students as those included in the Survey reported in Section I. The findings on the health and nutritional condition of the collegiate youth of Calcutta as published by the Board of Health can, therefore, be taken as representative of the health and nutritional conditions of the students covered by the Educational Survey. This note is based on an analysis of 1,000 cases selected at random from the total number of students examined during 1954.

32. The general appearance and the distinctive body build of the students may broadly be classified as undernourished and poorly developed, average and moderately developed and well-nourished and well-developed. For judging the nutritional status of the individual student, the Board of Health has for long utilised the Ponderal Index given by $100 \times \sqrt{\text{weight in kg.} \div \text{height in cm.}}$ The height and weight of each student along with other physical measurements are recorded by qualified medical workers who conduct the general health examination. The nutritional status of the students as revealed by the present survey is shown in the following table :

Nutritional Status	Percentage of Students		
Poor	42.7
Average	34.3
Good	23.0

On an analysis of the above table the following broad facts emerge, viz. (i) that out of a student population of 43,000 as many as 18,500 are undernourished; (ii) 14,600 students reach a level of nutrition which is moderate; and (iii) only 9,900 students achieve a level of nutrition which can be described as good. Simply stated it means that



out of every 20 students examined 9 students are undernourished and poorly developed, 7 are moderately nourished and moderately developed and only 4 are well nourished and well developed.

33. The post-war period, of high prices and scarcity of essential commodities, has increased the number of poorly developed and moderately nourished students and decreased the incidence of well-nourished and well-developed students. Whereas before the war there were *three* well-developed boys in a group of ten, now there are only *two* well-developed boys in a similar group.

34. A survey of the dietetic habits of the Bengalee collegiate students undertaken by the Students' Welfare Committee in 1938, revealed that roughly about 25% of the students included milk in their diet, but only about 17% took it in sufficient quantities to meet the requirements of the body and growth. The number of students (90%) taking fish regularly was satisfactory, but the quantity of fish consumed was low. Fresh fruits were taken by only about 29% of the students. Rice and Dal formed the main articles of food and 'Atta' or wheat was taken in one of the meals by about 52% of the students.

35. The findings from the 1954 survey reveal that the diet of the majority (84%) of the Bengalee students has deteriorated considerably as compared with the 1938 diet. The quantities of fish and milk included in these diets are too low to meet the daily requirements of the body, and butter and fruits have completely disappeared from these diets.

36. In the table on page 31 an attempt has been made to express the approximate quantities of food-stuffs which should be included in an *optimum* and a *minimal* diet. The approximate quantities of food-stuffs which are included in the diet of the Bengalees from the "Subsistence level" group and the "Below Subsistence level" groups have also been similarly depicted.

37. An *Optimum Diet* is one which supplies all the proximate principles of food and calories in quantities sufficient to meet all the demands of a growing body, maintain it in health and yet leave a little over to meet emergencies. This type of diet can be afforded by only 6% or one in sixteen of the families surveyed. The approximate cost of the diet comes to Rs. 2-2-0 per head per diem.

38. A *Minimal Diet* is one which supplies the proximate principles and calories in quantities just sufficient to maintain the body in health but does not leave any surplus to meet emergencies. This type

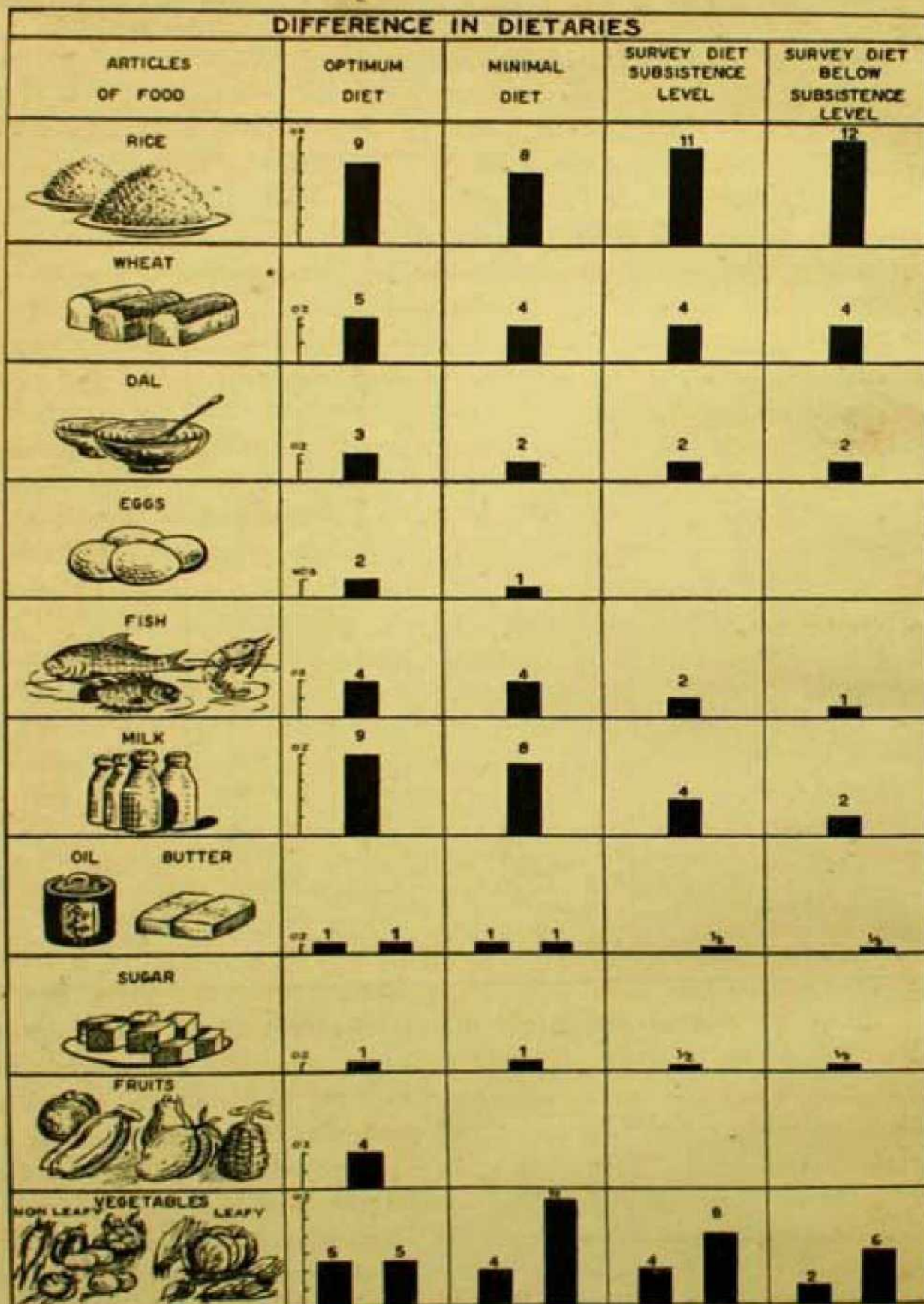
of diet is provided by 10% or one in ten of the families surveyed. The approximate cost of this diet is Rs. 1-8-0 per head per diem.

DIFFERENCES IN DIETARIES

Articles of food	Quantity consumed in ounces			
	Optimum.	Minimal.	Subsistence level.	Below Subsistence level.
1. Rice	9	8	11	12
2. Wheat	5½	4	4	4
3. Dal	3½	2	2	2
4. Milk	9	8	4	2
5. Fish or Meat	3½	4	2	1
6. Egg (number)	two	one	nil	nil
7. Butter	1	1	nil	nil
8. Oil	1	1	½	½
9. Sugar or Gur	1	1	½	½
10. Potato	4½	4	4	2
11. Leafy Vegetables	4½	12	8	6
12. Fruits	5	nil	nil	nil
13. Protein intake :	100 gm.	74 gm.	55 gm.	49 gm.
Animal	44 gm.	32 gm.	12 gm.	6 gm.
Vegetable	56 gm.	42 gm.	43 gm.	43 gm.
14. Total Calories	2,800	2,300	2,300	2,200
15. Average cost per diem...	Rs. 2/2/-	Rs. 1/8/-	Re. 1/-	As. -/12/-

39. The *Subsistence Level* diet is the diet of 53% or one in every two of the families surveyed and caters for the daily needs of 22,790 students. The striking features of this diet are a complete absence of butter and fresh fruits and reduction of fish and milk to a negligibly low level. This diet lacks in the materials necessary for body-building purposes and for preserving the health of the students. The approximate cost of this diet is Re. 1 per head per diem.

40. The *Below Subsistence Level* diet forms the diet of another 31% or one in three of the families surveyed and provides for the daily needs of 13,330 students. It is mainly composed of cereals, *i.e.*, Rice, Wheat and Dal. The body-building food-stuffs, *i.e.*, milk and fish have



been reduced to almost a vanishing point and the health protecting food-stuffs—butter and fruits have completely disappeared from the diet. The approximate cost of this diet is ₹12/- per head per diem.

41. The present enquiry reveals that one out of ten of the students surveyed suffered from some illness confining him to bed for more than 7 days during the past year. Of the students examined by the Board of Health only *two out of ten* did not complain of any symptoms of ill health or suffering. Eight out of ten students examined complained of some ailment or distressing symptom. The main complaints were repeated attacks of coughs and colds (four out of ten); repeated attacks of headache (two out of ten); breathlessness on exertion and palpitation (one out of ten); griping and bowel troubles (one out of ten) and watering of the eyes (one out of ten).

The findings of medical inspection are shown in the following table :—

Ailments		Percentage	Number of students
1. Skin Diseases	...	4.1	1,763
2. Caries (Dental)	...	8.7	3,741
3. Pyorrhoea	...	9.5	215
4. Enlarged Tonsils	...	2.7	1,161
5. Diseases of the Heart	...	1.3	559
6. Diseases of the Lungs	...	0.1	43
7. Enlarged Liver	...	0.4	172
8. Enlarged Spleen	...	2.9	1,247
9. Malnutrition	...	40.5	17,415
10. Defective Vision	...	30.0	12,900
11. Minor Ailments requiring medical attention	...	44.8	19,264

42. The nature and magnitude of the relief measures to be organised by a University Health Service is well brought out by the above figures. Five out of ten students examined require some immediate medical aid to relieve them of ailments which are not sufficiently serious to confine them to bed but which interfere with the normal working of the body and mind. Four out of ten students are affected with malnutrition and a further detailed investigation has to be undertaken to determine the causes leading to the state of poor nourishment and advice given to improve the state of health. Three out of ten students suffer from defective vision and arrangements have to be made to have their vision tested by ophthalmic surgeons, the nature and degree of the defect estimated and arrangements made for providing them with proper

glasses at a cost which they can easily afford. One out of ten students suffers from dental caries and a Dental Clinic has to be run to attend to these students at a nominal charge. Apart from these ambulatory cases arrangements have to be made for hospitalisation of students affected with acute diseases and students with diseases or defects requiring surgical interference.

43. In considering the problems of the collegiate youth in

General Observations.

Calcutta there should be no tendency to overlook or minimise the importance of the home environment in the student's life and consider him as a separate entity as if he were a being independent of domestic circumstances, daily diet, type of house, sleeping space, fresh air and the size of the family, etc. The ideal should be to link up the students' conditions of health not merely with the immediately associated bacteriological and pathological processes but also with the primary causes in the students' environment and mode of life.

44. The principal problem at the bottom is that of poverty. The main factor is the limited means of the students who are largely drawn from our "middle class" population which has been hit the hardest by the post-war conditions and economic struggle. The problem can be solved only if sufficient funds are made available for giving the students suitable individual accommodation and decent food and, after these essential needs have been met, for making provisions for healthy recreation and innocent amusements.

APPENDIX I

A Note on the Sampling Procedure and the Statistical Analysis of the Results

The tables appended hereto are based on information from a sample of 859 students of Calcutta Colleges. Some of the relevant information was, however, lacking in a number of cases and the extent of this missing information is indicated in each table by the percentages under the category "not-mentioned".

Sampling Procedure. The sample investigated was drawn in a stratified random manner. Each of the Calcutta Colleges for imparting undergraduate courses was selected, the students of which were divided into two groups : first year (I.A., I.Sc. and I.Com.) and third year (B.A., B.Sc. and B.Com.). So the particular group of students of each college formed a stratum wherefrom the samples were chosen at random (from the college roll numbers of the students).

Statistical Analysis. The statistical analysis involved the estimation of the proportion of students in different categories having the characteristics in which one is interested. As the sample was stratified random, the estimates were obtained as the weighted averages of the corresponding estimates in the different groups (i.e. first year and third year) of the different colleges. These estimates expressed as percentages are shown in the following tables.

Detailed calculation of errors of the given estimates has not been made, but an idea about the magnitude of this error may be had from the fact that the largest error involved in a percentage, $100p$, is given by $200 \sqrt{1/4n}$ where n is the size of the sample. As n will be varying from table to table due to missing information, the magnitude of this quantity for different percentages under the category "not-mentioned" is tabulated below :

Percentage of "not-mentioned" cases	Maximum error in percentage		
	1st year	3rd year	1st and 3rd years combined
0	4.2	6.0	3.4
10	4.4	6.2	3.6
25	5.0	6.8	4.0

Table A—Total number of students in the first-year and third-year classes of the different Colleges and the number included in the sample

College	Total No.	No. in the sample	FIRST YEAR		THIRD YEAR	
			Total No.	No. in the sample	Total No.	No. in the sample
1. Asutosh	3,273	115	2,349	84	924	31
2. Bangabasi	3,338	122	2,085	82	1,253	40
3. Charuchandra	641	38	515	28	126	10
4. Central Calcutta	229	7	171	4	58	3
5. City	5,041	198	2,976	115	2,065	83
6. S. A. Jaipuria	368	22	290	15	78	7
7. Maharaja M. C.	888	52	669	36	219	16
8. Presidency	490	28	256	15	234	13
9. Scottish Church	870	44	544	28	326	16
10. Sanskrit	37	4	21	2	16	2
11. St. Paul's C. M.	392	16	264	13	128	3
12. St. Xavier's	823	53	511	34	312	19
13. Surendranath	2,705	92	2,208	72	497	20
14. Vidyasagar	1,682	68	1,099	47	583	21
Total	20,777	859	13,958	575	6,819	284

Table 1—Students classified according to place of birth

Birth Place	Percentage of Students		
	1st year	3rd year	1st and 3rd years combined
East Bengal ..	35.7	29.6	33.7
West Bengal ..	50.7	54.6	52.0
Outside Bengal ..	13.6	15.8	14.3

Table 2—Percentage of students coming from outside Calcutta

Attending Classes from	Percentage of students		
	1st year	3rd year	1st and 3rd years combined
Calcutta ..	89.3	92.2	90.2
Outside Calcutta ..	10.7	7.8	9.8

Table 3—Percentage of Refugee (Regd.) students

Students	Percentage		
	1st year	3rd year	1st and 3rd years combined
Refugee (Registered) ..	28.2	25.2	27.2
Non-Refugee ..	71.8	74.8	72.8
Not Mentioned ..	—	3.5	2.5

Table 4—Results of the students at the last University or School Final Examination

TABLE : 4.1

Passed the Examination in	Percentage of Students	
	1st year (School Final)	3rd year (Intermediate)
First Division ..	8.8	17.5
Second Division ..	31.4	54.5
Third Division ..	59.5	18.3
Compartmental ..	0.3	9.7
Not Mentioned ..	—	6.0

TABLE : 4.2

Number of Times Appeared	Percentage of Students		
	1st year (School Final)	3rd year (School Final)	(Intermediate)
Once ..	83.3	96.2	66.1
Twice ..	13.8	3.3	29.8
More than twice ..	2.9	0.5	4.1
Not mentioned ..	—	6.3	22.4

Table 5—Students classified by occupation of Father or Guardian

Occupation of Father/Guardian	Percentage of students		
	1st year	3rd year	1st & 3rd years combined
Service ..	55.9	59.5	57.1
Profession* ..	15.6	14.4	15.2
Business ..	17.3	14.1	16.3
Cultivation ..	2.7	3.7	3.0
Landowning ..	3.0	6.1	4.0
Miscellaneous ..	5.5	2.2	4.4
Not mentioned ..	3.5	3.3	3.4

* Including Legal, Medical and Teaching professions.

Table 6—Expenditure Pattern

TABLE 6.1

Monthly Expenditure of the Family (in Rs.)	Average Family Size			Percentage of Families		
	1st yr.	3rd yr.	1st & 3rd years combined	1st yr.	3rd yr.	1st & 3rd years combined
—100	6.2	3.0	5.4	7.0	4.4	6.1
101—150	6.0	4.8	5.7	8.8	5.6	7.7
151—250	8.0	7.5	7.8	22.3	21.0	21.9
251—400	9.1	9.7	9.3	28.3	27.0	27.9
401—600	11.5	11.6	11.5	18.3	19.0	18.5
601—	14.7	12.1	13.6	15.3	23.0	17.9
All combined ..	9.7	9.6	9.7			

TABLE 6.2

Per Capita Monthly Expenditure (Rs.)	Percentage of Families		
	1st year	3rd year	1st & 3rd years combined
Less than 20	17.3	9.9	14.8
20—Below 30	16.7	15.9	16.4
30—Below 50	30.7	37.3	32.9
50—Below 75	22.3	16.7	20.4
75—Below 100	7.6	11.1	8.8
100 and above	5.4	9.1	6.7
Not mentioned ..	13.4	11.3	12.7

Table 7—Percentage of students supplementing Income by doing Part-time or Whole-time Work

Income Supplemented by	Percentage		
	1st year	3rd year	1st & 3rd years combined
Whole-time Job	11.7	20.3	14.6
Part-time Job	9.5	15.1	11.3
No Job	78.8	64.6	74.1
Not mentioned ..	2.8	—	2.1

Table 8—Housing Conditions

TABLE 8.1

Nature of the House			Percentage		
Floor	Roof		1st year	3rd year	1st & 3rd years combined
Cemented	Pukka	..	78.7	74.9	77.4
"	Tiled	..	5.0	7.0	5.6
"	Tin	..	7.9	6.8	7.6
"	Khola	..	0.1	0.5	0.3
Kutcha	Pukka	..	0.2	0.5	0.3
"	Tiled	..	3.3	2.9	3.2
"	Tin	..	3.1	4.7	3.6
"	Khola	..	1.7	2.7	2.0
Not mentioned ..			5.1	6.8	5.6

TABLE 8.2

Per Capita Floor Space Available (Sq. ft.)			•	Percentage		
				1st year	3rd year	1st & 3rd years combined
Below	10	..	2.4	3.2	2.6	
10—Below	25	..	31.3	29.5	30.7	
25—	45	..	22.2	20.9	21.8	
45—	65	..	18.5	16.5	17.9	
65—	100	..	10.6	11.8	11.0	
100—	150	..	9.4	8.3	9.1	
150—	200	..	2.2	3.5	2.6	
200—	300	..	2.2	3.5	2.6	
300 and above		• ..	1.2	2.8	1.7	
Not mentioned			..	11.7	10.6	11.3

Table 9—Reasons for students' migration to Calcutta Colleges

Reasons for coming to Calcutta Colleges	Percentage		
	1st year	3rd year	1st & 3rd years combined
1. Parents posted in Calcutta on service or business ..	51.0	46.0	49.3
2. Refugee settled in Calcutta	20.1	19.1	19.8
3. Family traditions ..	0.6	0.5	0.6
4. No facilities in mofussil colleges of student's Home District or area for study of the subject chosen ..	8.9	13.5	10.4
5. No college near earlier place of residence and study ..	6.4	4.1	5.7
6. Reputation of Calcutta colleges for better teaching, library and laboratory ..	5.9	5.8	5.8
7. Greater opportunity to meet expenses of study by earning in part-time job or by private tuition	3.1	8.3	4.8
8. Greater chance of getting concessions and stipends	0.4	0.6	0.5
9. Lure of Calcutta life ..	0.9	0.4	0.7
10. Any other reason ..	2.7	1.7	2.4

Table 10—Distribution of students according to their Places of Residence

Staying	Percentage		
	1st year	3rd year	1st & 3rd years combined
With Parents ..	72.2	67.4	70.6
With Relatives ..	19.3	17.2	18.6
In Hostels ..	4.9	6.6	5.5
In Recognised Messes ..	0.4	1.0	0.6
In Unrecognised Messes ..	3.2	7.8	4.7

Table 11—Percentage of students having a Bedroom

Having a Bedroom	Percentage		
	1st-year	3rd-year	1st & 3rd-years combined
For Self	17.5	18.1	17.7
Shared with one person ..	11.6	15.9	12.9
Shared with more than one person ..	69.9	65.3	68.4
Sleeps in Verandah, etc. ..	1.0	0.7	1.0

Table 12—Percentage of students having a Study Room

Reading	Percentage		
	1st-year	3rd-year	1st & 3rd-years combined
In their own Study ..	14.7	16.7	15.4
In a Study with others ..	21.2	18.6	20.3
In a Room used for other purposes ..	64.1	64.7	64.3

Table 13—Percentage of students ready to give up study for a suitable job

Salary of the job (in Rs.)	Percentage of students		
	1st-year	3rd-year	1st & 3rd-years combined
—100 per month ..	9.7	5.9	8.5
101—200	16.2	21.0	17.7
201—	3.9	4.9	4.2
Not willing to give up study ..	70.2	68.2	69.6
Not mentioned ..	7.6	12.8	9.3

Table 14—Students' proposed career after study

Proposed Career	Percentage of Students		
	1st-year	3rd-year	1st & 3rd-years combined
Government Services* ..	8.1	8.0	8.1
Teaching	2.6	7.4	4.1
Legal Profession ..	1.8	3.9	2.5
Medical Profession ..	10.5	7.3	9.4
Engineering	26.1	15.7	22.8
Business	6.2	5.4	5.9
Higher Research Job ..	1.8	5.1	2.9
Miscellaneous	42.9	47.2	44.3
Not mentioned	3.0	4.7	3.6

* Includes I.A.S., Defence, and other Government Jobs.

Table 15—Availability of Text-Books

Text-Books available	Percentage		
	1st-year	3rd-year	1st & 3rd-years combined
By purchase	45.9	36.9	42.9
By purchase & by loan ..	33.9	34.7	34.2
By loan	10.2	12.9	11.1
Large numbers not available..	10.0	15.5	11.8

Table 16—Hours devoted to study and other work at home

Hours daily devoted	Study			Other Occupation			Earning Money		
	1st year	3rd year	1st & 3rd years combined	1st year	3rd year	1st & 3rd years combined	1st year	3rd year	1st & 3rd years combined
0*—	1.0	1.2	1.1	25.7	14.0	21.1	77.8	62.4	72.7
1—	4.7	7.9	5.7	16.9	12.4	15.1	3.1	3.9	3.4
2—	21.3	30.3	24.2	28.3	29.2	28.7	6.8	10.0	7.8
4—	39.6	34.0	37.8	11.0	11.7	11.3	1.8	2.5	2.0
6—	33.4	26.6	31.2	18.1	32.7	23.8	10.5	21.2	14.1
Not mentioned	—	—	—	53.7	39.8	49.2	6.0	5.4	5.8

* For study '0' means 1/2 hour to less than 1 hour.

For other occupation '0' means 0 hour to less than 1 hour.

For earning money '0' means zero i.e. no time is lost.

Table 17—How often students visit Cinema, Theatre and Games

No. of Visits in last month (i.e. March)	Cinema and Theatre			Games		
	1st-yr.	3rd-yr.	1st & 3rd years combined	1st-yr.	3rd-yr.	1st & 3rd years combined
0	56.2	48.5	53.6	86.7	87.6	87.0
1	18.7	22.9	20.1	5.4	7.1	6.0
2	15.3	14.7	15.2	2.9	2.7	2.8
3	3.0	7.8	4.6	2.4	0.8	1.8
4	4.5	2.7	3.9	0.6	0.4	0.6
5	1.2	2.3	1.5	0.3	0.0	0.2
Above 5	1.1	1.1	1.1	1.7	1.4	1.6
Not mentioned	5.9	2.7	4.8	9.7	4.8	8.1

Table 18—Percentage of students suffering from serious illness

Period of Illness	Percentage		
	1st-year	3rd-year	1st & 3rd years combined
No illness or illness for less than			
one week	80.7	79.7	80.4
1 week	4.9	5.6	5.1
2 weeks	4.9	2.9	4.3
3 weeks	0.8	0.3	0.6
4 weeks & above	8.7	11.5	9.6
Not mentioned	6.5	11.8	8.2

Table 19—Per capita consumption of food constituents

Rice .. 2 srs. 9 chh/week					
Wheat .. 1 sr. 0 chh/week					
Monthly Expenditure (in Rs.)		Milk/per week	Fish/per week	Meat/per week	Egg/per month
—100	..	8 chh	3 chh.	Negligible (0.4 ch)	Negligible (0.4)
101—150	....	7 ..	7 ..	Do. (0.3 ch)	Do. (0.5)
151—250	..	7 ..	5 ..	Do. (0.3 ch)	1
251—400	..	1 sr. 0 ..	7 ..	Do. (0.4 ch)	4
401—600	..	1 sr. 7 ..	8 ..	1 ch. *	3
601—	..	2 srs. 13 ..	12 ..	3 chh.	4

Special Study of Students Who passed the Last Examination in the First Division

(Based on the number of First Division students: 59 in 1st-year and 46 in 3rd-year)

Table 20—Expenditure Pattern of Families (1st Division boys)

Per Capita Monthly Expenditure (in Rs.)		Percentage of Families		
		1st-year	3rd-year	1st & 3rd-years combined
Below 20	..	4.6	13.5	8.7
20 .. 30	..	9.1	13.5	11.1
30 .. 50	..	34.1	29.8	32.1
50 .. 75	..	27.3	27.0	27.2
75 .. 100	..	15.9	8.1	12.3
100 and above	..	9.0	8.1	8.6
Not mentioned	..	25.4	19.6	22.9

Table 21—Availability of Text-Books (1st Division boys)

Text-Books Available		Percentage of Students		
		1st-year	3rd-year	1st & 3rd-years combined
By Purchase	..	52.6	46.5	50.0
By Purchase & By Loan	..	28.1	16.3	23.0
By Loan	..	1.8	11.6	6.0
Large number not available	..	17.5	25.6	21.0
Not mentioned	..	3.4	6.5	4.8

Table 22—Percentage of Students having a Study Room (1st Division boys)

Reading	Percentage		
	1st-year	3rd-year	1st & 3rd-years combined
In their own Study Room ..	17.0	20.1	21.0
In a Study Room with Others	27.1	23.9	25.7
In a room used for other purposes	55.9	50.0	53.3



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APPENDIX II

Rough Estimates of Expenditure necessary to implement the proposals recommended in the foreword to this survey report.

1. Day Students' Homes for 12,000 students

Capital Expenditure

Buildings at 25 sq. ft. per student—Floor space—3,00,000 sq. ft.

At Rs. 15 per sq. ft. including Electric and Sanitary fittings—	Rs. 45 lakh
Land 5,00,000 sq. ft. at Rs. 6 per sq. ft.	... Rs. 30 lakh
Library, furniture, etc.	... Rs. 18 lakh

Total Rs. 93 lakh

Recurring expenditure including repairs to buildings, municipal taxes, establishment, canteen service and provision of adequate reading room facilities (at 1 lakh for each home of 1,000 students).	... Rs. 12 lakhs
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2. 8 colleges for 12,000 men students 2 colleges for 2,000 women students.

Capital expenditure	... Rs. 150 lakhs
Recurring expenditure	... Rs. 25 lakhs

3. Helping the existing colleges

Capital grant	... Rs. 25 lakhs
Recurring grant	... Rs. 15 lakhs

4. Additional recurring expenditure for National Cadet Corps and Social Service Camps	... Rs. 10 lakhs
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5. Building 2 Halls of Residence for 250 students each

Capital Buildings	... Rs. 20 lakhs
Land	... Rs. 10 lakhs

Recurring expenditure for maintaining the Halls	... Rs. 50,000
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S. C. Roy Collection

24-7-54